



U.S. Fish & Wildlife Service

Wildlife and Habitat

Deer Flat National Wildlife Refuge



Background

Deer Flat National Wildlife Refuge encompasses approximately 11,000 acres in two units — Lake Lowell and the Snake River Islands. The Units lie within two states (Idaho and Oregon) and five counties and comprise several habitats including riparian forest, shrub steppe, open-water, freshwater marshes and cropland.

Water levels at Lake Lowell are controlled by the Bureau of Reclamation and may vary widely due to the spring and summer release of water for irrigation.

The Snake River Islands Unit, encompasses over 100 islands distributed along 113 river miles, from the Canyon-Ada County line to Farewell Bend in eastern Oregon. This Unit was established in 1937 with the purpose of providing waterfowl nesting habitat.



The purpose of Deer Flat National Wildlife Refuge is to provide a refuge and breeding ground for migratory birds and other wildlife.

The Refuge is situated in an area that is quickly changing from rural to urban. As surrounding agricultural land and open space are developed, fewer areas remain available for wildlife. Many of the Refuge habitats, as well as Refuge farm ground, are plagued with a variety of noxious weeds and invasive plant species, including cheat grass, Canada thistle and Scotch thistle; perennial pepperweed, rush, skeleton weed, hoary cress, puncturevine, poison hemlock, salt cedar, false indigobush and Russian olive.

Wildlife

Resident Canada geese nest on the Snake River Islands in April and their goslings typically hatch in early May.



Great blue herons, black-crowned night herons and double-crested cormorants nest in rookeries on some islands and in trees surrounding Lake Lowell in April and May. The islands are closed to all public entry from February 1 to May 31 to protect nesting birds.

In spring, raptors use both the islands and area surrounding Lake Lowell.

The islands, their surrounding waters and the lake provide winter foraging and resting habitat for a variety of waterfowl, including goldeneyes, scaup, mergansers, buffleheads, wood ducks, green-winged teal and mallards. In summer, white pelicans, mallards and wood ducks congregate on Lake Lowell and western and Clark's grebes nest in the lake's smartweed beds.

Later in the summer, as the lake is drawn down for irrigation, shorebirds, including long-billed dowitchers, least sandpipers, godwits, yellowlegs and plovers come to feed on the exposed mudflats. As colder weather drives migrating ducks and geese south, some birds stop over temporarily and others remain for the winter. By mid-November, the goose population peaks at about 12,000. Duck populations peak in mid-December, with up to 80,000 on Lake Lowell.



Top: American white pelicans take flight/
©Mike Shipman;

Left: Red-winged blackbird/©Mike Shipman;

Center: Newly hatched Canada geese goslings/©Darin Bruce;

Above: Western grebe by nest/
Addison Mohler, USFWS



Lake

Several hundred acres of moist-soil plants (primarily smartweed) occupy the transition zone from the lake shoreline to the open water. Moist-soil plants are a valuable food source for migrating waterfowl during fall and spring. This emergent plant community provides habitat for nesting grebes and foraging habitat for pelicans and other waterbirds.

In the fall, the smartweed seeds provide nutrition for migratory ducks heading south. The open water of Lake Lowell is vital for waterfowl as roosting and loafing habitat and as a place for the birds to forage for fish.



Lake Lowell is on the State's 303(d) list (Clean Water Act) as an impaired water body for nutrients and dissolved oxygen. Stormwater from Boise, Meridian, Kuna and rural residential areas in Ada and Canyon counties and agricultural runoff from lands in southern Ada and Canyon counties flow into canals and drains feeding into Lake Lowell. The sources of nutrient loading include high levels of phosphorus. The Idaho Department of Environmental Quality is currently developing a Total Maximum Daily Load (TMDL) for total phosphorus in Lake Lowell.

Riparian Forests

Cottonwood, peachleaf willow and coyote willow are the dominant tree species in the riparian habitat of Lake Lowell and the Snake River Islands. The riparian areas are key habitat for many of the native bird species. Experts have identified 77 species of land birds that are obligate or breed in riparian habitat in the western United States.

Wetlands

There are three created seasonal/moist-soil wetlands on the Lake Lowell Unit. These wetlands provide unique local habitat in an agricultural and urban landscape. Vegetation that grows in the marsh wetlands provides food, nesting sanctuary and protection for such species as mallards, sora rails and yellow-headed blackbirds.

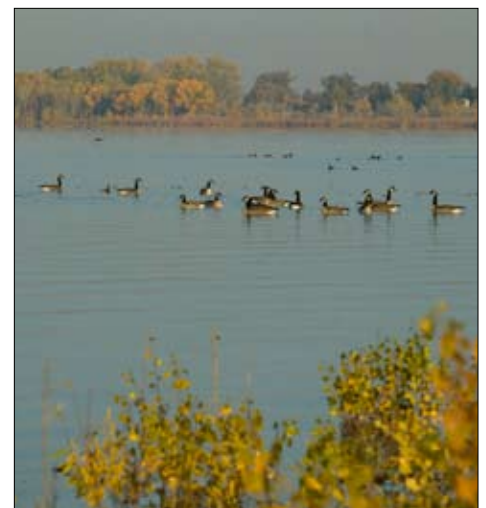
Uplands

The upland habitat of both Units includes several hundred acres of upland sage steppe habitat consisting of native sagebrush, rabbitbrush and Great Basin wild rye bunchgrass.

The largest uninterrupted tracts on the Lake Lowell Unit are found just west of the Visitor Center and on several of the larger Refuge islands. Rabbits, gophers, badgers, mule deer and mourning dove feed on the upland plants and rely on them for cover and nesting. Predators such as foxes, coyotes, red-tailed hawks and American kestrels also inhabit the sage steppe habitat.

Croplands

Approximately 240 acres of land within the Refuge is irrigated cropland managed to provide food and cover for wildlife. Local cooperative farmers are generally required to leave 25 percent of the crop standing, leave six inches of green browse or plant a winter cover crop prior to waterfowl season. Corn, beans, peas, wheat and alfalfa are planted using minimal pesticides and fertilizers. Pheasants, deer and other wildlife use the fields year round.



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*Top: Smartweed on the lake/USFWS;
Left: American white pelicans in flight/
©Dick McKee;
Left, center: American white pelicans/
©Mike Shipman; Smartweed along the shore/
USFWS;
Right: Canada geese/©Mike Shipman*